# ENGINEERING POLICY BALLOT

## Effective: June 1, 2010

### Issue 1: Covering Concrete

**Approval:** **Level 2 – System Delivery Team**

Sponsor: Joe Jones - DE

Summary: Certain modifications of B2 concrete have set retarders that would cause the surface to be marred if the slab was covered within the 90-minute maximum currently specified. For mixes modified with 15% or more of fly ash or slag, this revision will suspend the 90-minute window until immediately after the concrete has cured beyond the plastic state.

Fiscal Impact: There is a $0 fiscal impact associated with this change.

Publication: Std. Spec. Sec 703

### Issue 2: Roller Compacted Concrete

**Approval:** **Level 2 – System Delivery Team**

Sponsor: Brett Trautman - CM

Summary: This revision will allow the contractor the option of determining the in-place density of Roller Compacted Concrete (RCC) with a nuclear gauge. Monitoring the density during placement will allow better control of the operation and achieve the desired long-term performance.

Fiscal Impact: This revision could reduce the cost $0.30 per square yard for testing.

Publication: Division 500 of Supplemental Revisions

### Issue 3: Use of Metakaolin as Cementitious Supplement

**Approval:** **Level 2 – System Delivery Team**

Sponsor: Brett Trautman - CM

Summary: This revision will allow the use of metakaolin as a supplementary cementitious material and will provide contractors more options to tailor concrete mixes different situations. Metakaolin can be used to mitigate the alkali-silica reaction,a destructive mechanism in concrete Metakaolin can also be used to improve early strength gain for mixes using fly ash and slag.

Fiscal Impact: This revision could reduce the cost of concrete by $1.75 per cubic yard.

Publication: Std. Spec. Sec 501

## Issue 4: Portland Cement Concrete and Base Options

**Approval:** **Level 2 – System Delivery Team**

Sponsor: John Donahue - CM

Summary: This revision will enhance concrete pavement and base construction by eliminating references to keyways, lowering opening strengths, increasing average minimum texture, allowing profile indices, making material control charts optional and defining limits for corrective grinding actions.

Fiscal Impact: There is a $2,000 reduction per job by reducing traffic control.

Publication: Std. Spec. Sec 502

## Issue 5: Concrete Overlays

**Approval:** **Level 2 – System Delivery Team**

Sponsor: John Donahue - CM

Summary: This revision will incorporate special provision language into the standard specifications. It will synchronize the overlay terminology with current national trends, lowering opening strengths, allowing for thinner (5-inch) unbonded overlays, allowing the use of the geotextile interlayer option and standardize the existing surface and concrete material temperature

Fiscal Impact: Allowing the use of the geotextile interlayer could result in a cost reduction of $2.00 per square yard.

Publication: Std. Spec. Sec 506

## Issue 6: Geotextiles

**Approval:** **Level 2 – System Delivery Team**

Sponsor: John Donahue - CM

Summary: This revision would add to the another geotextile category existing Section 1011. Geotextile interlayer's provide another separation option for unbonded overlays.

Fiscal Impact: Allowing the use of the geotextile interlayer could result in a cost reduction of $2.00 per square yard.

Publication: Std. Spec. Sec 1011

## Issue 7: Trench Drains

**Approval:** **Level 2 – System Delivery Team**

Sponsor: John Donahue - CM

Summary: The standard drainage system along median and shoulder barrier typically consists of intermittent drop inlets attached to an underground pipe that carries water away from the roadway. This revision allows for trench drains which provide continuous drainage thought the entire drained length.

Fiscal Impact: If trench drains are used in drop inlet/pipe configuration there would be a savings of $16 per lineal foot.

Publication: Std. Spec. Sec 1068

## Issue 8: Truncated Domes

**Approval:** **Level 2 – System Delivery Team**

Sponsor: John Donahue - CM

Summary: This revision will address payment and material requirements for truncated domes that are used for sidewalk curb cuts and pedestrian island cut-throughs.

Fiscal Impact: There is a $0 fiscal impact with this change.

Publication: Std. Spec. Sec 608 and Std. Spec. Sec 1067

## Issue 9: Multi-Cell Box Culverts

**Approval:** **Level 2 – System Delivery Team**

Sponsor: Gregory Sanders - BR

Summary: This revision will include information that would comply with Corps of Engineers requirements for multi-cell box culvert sections. In such cases, the center cell will have a depressed flowline to conduct movement of aquatic life during low-flow periods.

Fiscal Impact: There is a $0 fiscal impact with this change.

Publication: EPG Sec 750.7

## Issue 10: Bridge Approach Slabs

**Approval:** **Level 2 – System Delivery Team**

Sponsor: Dale Williams - CM

Summary: Based on contractor input from the annual AGC COOP Meeting, Bridge Breakout session, this revision removes the requirement to seal approach slabs.

Fiscal Impact: There is a $950 per bridge reduction with this change.

Publication: Std. Spec. Sec 503

## Issue 11: Load-Bearing Pile Splices

**Approval:** **Level 2 – System Delivery Team**

Sponsor: Dale Williams - CM

Summary: Structural pile has been traditionally underrun, on average 1% per year. Yet current specifications require the contractor to supply 10% over plan quantity. Based on the previous underruns and comments from industry, the 10% requirement is being removed.

Fiscal Impact: There is a $35,000 per year savings.

Publication: Std. Spec. Sec 702 and EPG Sec 702.1.4.2

## Issue 12: Pavement Repair

**Approval:** **Level 2 – System Delivery Team**

Sponsor: Dale Williams - CM

Summary: Current options to repair pavements that crack involve partial removal of the pavement, or in severe situations, full depth repairs. This revision incorporates a new alternative to pavement crack repairs as well as providing a standard plan for the current option of dowel bar retrofit repairs.

Fiscal Impact In cracked pavement situations, cross stitching would save approximately $2000 per location over partial depth pavement repairs.

Publication: Std. Spec Sec 613, Std. Plan 613.00 and EPG Sec 613

## Issue 13: Pre-bore for Piling

**Approval:** **Level 2 – System Delivery Team**

Sponsor: Dale Williams - CM

Summary: Based on input from the contractor's at the AGC Coop Meeting, the method of driving a pile in an existing fill has been changed to give the contractor's more flexibility.

Fiscal Impact: There is a $2,500 per bridge reduction with this change.

Publication: Std. Spec. Sec 702

## Issue 14: Drilled Shafts Coring

**Approval:** **Level 2 – System Delivery Team**

Sponsor: Travis Koestner - CM

Summary: Currently the specification indicates that payment for the coring will not be made if no defects are found in the shaft. This revision will rely upon sonic logging as the primary method of Q.C. coring will only be used if the sonic log shows an anamoly. Payment will be made at an established fixed price will be added to Section 109.

Fiscal Impact: By reducing the number of cores necessary, this revision will save $60,000 annually.

Publication: Std. Spec. Sec 701

## Issue 15: Granular Backfill for MSE Walls

**Approval:** **Level 2 – System Delivery Team**

Sponsor: Brian A. Williams - CM

Summary: This revision will loosen the specification on select granular backfill material for Mechanically Stabilized Earth (MSE) walls. Aggregate material used to backfill the wall is very expensive due to tight specifications

Fiscal Impact: There is a $0 fiscal impact with this change.

Publication: Std. Spec. Sec 1010

## Issue 16: Dowel Bar Placement

**Approval:** **Level 2 – System Delivery Team**

Sponsor: John Donahue - CM

Summary: This revision will modify Std. Plan 502.10 to allow for the use of mechanical dowel bar inserter as an alternate to placing dowel bar baskets. The use of this alternate method of dowel bar placement would reduce materials and labor instead of placing and staking dowel baskets as being done today.

Fiscal Impact: By using the alternate dowel bar placement, a reduction of $2,000 per lane-mile is associated with this revision.

Publication: Std. Plan 502.10K and Std. Plan 502.05M

## Issue 17: Change Intervals for Signals

**Approval:** **Level 2 – System Delivery Team**

Sponsor: Ashley Reinkemeyer - TR

Summary: This revision will adjust the formula to determine the value for yellow and red to input into the signal controller when evaluating the signal timing. This is in accordance with the new yellow and red requirements in the Mobility Plan.

Fiscal Impact: There is a $0 fiscal impact with this change.

Publication: EPG 902.5.3.2

## Issue 18: Preformed Pull Boxes

**Approval:** **Level 2 – System Delivery Team**

Sponsor: Ashley Reinkemeyer - TR

Summary: The diameter of the Class 5 pull box cover is to be decreased and the thickness requirement removed. These requirements are not necessary because the thickness of the cover for a preformed pull box is determined by a wheel load rating as stated in the specifications.

Fiscal Impact: While there is a $0 fiscal impact with this change, there will be an intangible benefit from increased competition.

Publication: Std. Plan 902.20E

## Issue 19: Visibility and Safety Improvements (LED)

**Approval:** **Level 2 – System Delivery Team**

Sponsor: Ashley Reinkemeyer - TR

Summary: In order to improve roadway visibility and safety this revision will involve circular, arrow and pedestrian LED indications to meet the current industry standard.

Fiscal Impact: There is a $98 per head savings associated with this revision.

Publication: Std. Spec. Sec 1092

## Issue 20: Conduit on Bridge Structures

**Approval:** **Level 2 – System Delivery Team**

Sponsor: Greg Sanders - BR

Summary: Currently contractors are having difficulties connecting conduit to junction boxes because of clearance requirements. This revision will remedy the problem by updating the location of the junction boxes from the outside face of the barrier to the inside. This will also become more practical to build and safer to inspect and maintain.

Fiscal Impact: There is a $0 fiscal impact associated with this change.

Publication: EPG Sec 751.10.4